DOCUMENT RESUME

ED 170 251 SP 014 103

AUTHOR Barr, Donald
TITLE Educational Polity and Curriculum Design.
SPONS AGENCY National Inst. of Education (DHEW), Washington, D.C. Task Force on Curriculum Development.
PUB DATE 30 Oct 76
NOTE 48p.; Paper prepared for the NIE Curriculum Development Task Force; for related documents, see SP 014 095-115, SP 014 185-186, ED 124 530, ED 140 401, and ED 144 217

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS Curriculum Development; *Curriculum Planning; *Curriculum Research; *Educational Policy; Federal Aid; *Federal Programs; Government Role; *Government School Relationship; Instructional Materials; *Program Development

ABSTRACT

Any system for the sponsorship, support, or design of educational projects (such as curriculum projects) has intrinsic biases as to style and content. To test the thesis that these biases are virtually inevitable and precede considered policy, two simplified models of systems support can be used: the "Culture Ministry" approach and the "In Situ" approach. In the "Culture Ministry" approach, which can be described in the actual (though as yet unofficial) emergence of a conglomeries of governmental agencies, major foundations, and large publishers, curricular and other projects are designed without regard for the cultural realities upon which the schemes are to be imposed. The "In Situ" approach, by contrast, shifts the loci of planning and decision to actual schools in actual communities and sets up collaborative schemes between teachers and subject-matter specialists. In the light of these two approaches, the National Institute of Education should provide for: total separation of initiation and funding of projects; limits on grant size; avoidance of incursions into the private sector; and scrupulous avoidance of any attempt to promote acceptance of new curricula by schools. (Author/DS)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED170251

Educational Policy and Curriculum Design

Donald Barr
Hackley School

A paper prepared for the
NIE Curriculum Development Task Force

October 30, 1976

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

SP014 103

SUMMARY

Any system for the sponsorship, support, or design of eductional projects (such as curriculum projects) has intrinsic biases as to style and content. These biases inhere in the source, size and locus of the sponsorship, not in the conscious intentions of the people in the system. To test the thesis that these biases are virtually inevitable and precede considered policy, we can use two simplified models of systems of support: the Culture Ministry approach and the In Situ approach.

The Culture Ministry approach, which can be described in the actual (though as yet unofficial) emergence of a congeries of governmental agencies, major foundations, big test publishers, big textbook publishers, and a favor-network of educational consultants and quasi-itenerant administrators, is deductive, suprapolitical, holistic and large. Curricular and other projects are designed and marketed de haut en bas, generally ignoring the cultural realities upon which the schemes are to be imposed, and avoiding the traditional politics of educational change, which was an accommodating, mediating, wardheeling style of politics. Even the industrial sequence of Research-

Development-Design-Sales is scanted, the feedback loop of market research being left open in the Culture Minstry approach. On the two political requirements a democracy places on its institutions, responsiveness and responsibility, the Culture Ministry approach falls short. It makes three assumptions: the plasticity of culture, the ignorance of parents, and the cupidity of teachers.

The Culture Ministry approach, by its very structure, favors innovation for the sake of innovation, in detail as well as basic conception; scientizing, often drawing on inappropriate science; and excessive completeness, including a highly deleterious teacher-proofing.

In contrast, the In Situ approach shifts the loci of planning and decision to actual schools in actual communities, and sets up a dispersed collaboration between school teachers and subject-matter authorities, mediated by faculty from schools of education. This model cannot be observed in any existing arrangements, but an analogous arrangement is "field-based, performance-based" teacher education. Such teacher-training programs are unfortunately subject to a institutional dialectic which tends to transmute them into their opposites, Culture-Ministry-run "competency-based" programs.

The In Situ approach would favor realistic, evolving, age- and culture-appropriate improvements in education, and would promote responsiveness and responsibility.

Recommendations for NIE: total separation of initiation and funding of projects; limit on grant size; skepticism as to methodological innovation; avoidance of incursions into or arrangements with the private sector; scrupulous avoidance of any attempt to promote acceptance of new curricula by schools.

Before we can address ourselves honestly to the principal questions before us -- which I take it are: (1) "What (if anything) should NIE do to initiate or pay for new research in curriculum theory?" (2) What (if anything) should NIE do to initiate or fund new teaching methods, new curriculum designs, new texts, new didactic software, or new didactic paraphernalia?" and (3) "What (if anything) should NIE do to introduce these new products into American schools?" -- we have to confront this possibility: that there is no such thing as a neutral mechanism of sponsorship or support. It may be that every system has opinions of its own and that these opinions antedate thought; that the method of generating or judging proposals, the source and magnitude of funding, and the locus of judgment are in themselves biased for and against certain substantive approaches. The recent controversies among scientists over peer-review suggest something of the sort but seem to center on the charge that "the Establishment" is dominated by intellectual factions and fashions and is motivated by self-interest.

I think the problem goes deeper. The men and women who work in a system of evaluation and support

may not intend, but the system tends, to favor certain sorts of projects -- the innovative over the familiar or vice versa, the industrial over the personal or vice versa, the secular over the moral or vice versa.

About seventeen years ago, for example, I was directing a massive study of underachievement among high-ability students in New York City public high schools. We had a grant from a middle-sized foundation. We came to the end of the grant; the study was yielding some interesting and practical insights; we went back to the foundation -- and were turned down. My colleagues at 110 Livingston Street were sure that the reform-minded businessmen on the board of the foundation were disappointed in our work because, instead of developing material for an indictment and reform of the schools, we kept turning up evidence of certain disabilities, instabilities, and ego problems in the children themselves. I thought I would test my colleagues' hypothesis against another one: that our work had lost its appeal simply because it had lost its novelty. I happened at the time to be also directing a massive enrichment program for gifted high-school students at Columbia University, and this had used up its original grant from a very small

foundation. I called up the middle-sized foundation and asked them to give $50,000 to the enrichment program, pointing out that it could well serve as a model for a reform of public school programs for the gifted. The executive director of the foundation told me that he would take the proposal to his board but could hold out little hope. "Why not?" I asked. "It's a sound, established program."

"That's why not," he answered, adding bitterly, "If you wanted to found a symphony orchestra of chimpanzees, I could get you $100,000 tomorrow." I asked, "What if they were Pakistani chimpanzees?" (This was when Pakistan, not Bangla-Desh, was a glamor item in the news.) "Oh, $200,000 today," he said.

An anecdote of this kind proves nothing, but it illustrates the difference between biases of belief and biases of viewpoint. It does not show that foundations are a branch of show biz, but it suggests that sometimes, in the special context of the organized sponsorship of change, tested soundness might not always enjoy the advantage it would have in the quotidian setting of a schoolroom.

Polity affects policy, independently of what are called "policy considerations"; and if this paper, an amateur essay in the sociology of education; seems to deal at excessive length with polity, that is because "the set up" is so often an unacknowledged force in making quite detailed decisions.

I propose to set up -- for heuristic purposes -- two models of educational polity, a pair of extremes, and to speculate a little on the particular kinds of curricula that each might tend to favor.

The contrast might suggest some prudent limits NIE should set on its activities.

-i-

Some years ago, I served on a "panel" set up by a massive learned society, which had got a grant from the government to design an elementary-school curriculum. Most of the other panelists were men from the chemistry, biology, and physics departments of universities. There was a big learning-theory man from Pittsburgh who kept talking about "knowledges" and handing out schematics and wiring-diagrams of the entire domain of thought. Two of us were what are called "educators"; one lady had actually taught in elementary school. She was a "resource" person.

We met (and met and met) in the board-room of the society, discussing "strategies" and "what children must know in order to function in the world of the future". There was a young limnologist from Wisconsin who murmured from time to time that he could not imagine why he had been invited to serve on this panel; and finally the strangeness of it all overtook him and he said aloud, with a rather wicked flash of eye: "Aren't we in danger here of the Culture Ministry approach to education?"

This remark had no deterrent effect.

Those of my fellow panelists who took it in at all seemed to think it was an obscure patriotic slur on the French or Russian ways of doing things. Everyone at that time admired the Russians' educational achievements. (It was five or six years after Sputnik.) As to the French system -- its rigidities could be explained away by the fact that it was run by Frenchmen.

For me, the remark suddenly pulled together into one insight many of the small discomforts and suspicions I had been feeling about the large educational projects of those days -- about their "What have you folks been doing?" air of rolling up the sleeves and getting to work at last, about their sweeping intolerance of human fret, about their itch to be major.

The United States may not yet have an official Culture Ministry, and no one, of course, suspects NIE of aspiring to become one (or even part of one), but since that remark was uttered the Culture Ministry habit of mind has steadily grown on us. The Federal bureaucracy has grown inexorably, and we have picked up its methods and its style. The cash

investment a schoolbook publisher must make before he gets his first "adoption" on a series has grown so huge that only a few houses can compete, and so the most influential books in America do not come out of the daily local experience of America but are task-force products, done "in house" by employees of large oligopolists. America is now only three hours X five hours in size, very concentrated, very intricate; educators no longer dispersed over a vast land and rooted in towns and villages and country seats have been seized by a kind of distracting, deracinating restlessness; they fly about; they fly to conferences and keep their ears open for good "options", they fly home, sound out their wives, and update their resumes; and then they attack local problems "creatively", which is to say not with the solutions that might be peculiarly suited to the individuals and circumstances of the communities they are in now, but with solutions that will be of interest elsewhere. In more and more towns, the Superintendent of Schools is not an understanding and understood neighbor, but only a slow-moving consultant, and the Assistant Superintendent is passing through with his innovative memoranda in his attache case on his way from Fargo to Hamtramck (to Duluth to Purchase to Houston);

more and more educators do not live in any community at all, but live in the strange nongeographical world of professional advancement, the world of favors, of "contacts", of knowing "key" people, of "keeping in good"; and if this world does not yet have a fixed, announced power structure in the stultifying French manner, it does have a first-name structure, a favor-network. Given time and a foundation-grant, any 35-year-old elementary school teacher could draw a "sociogram" of it. And already, in some of the offices in HEW, some of the larger state Departments of Education, two of the major foundations, some of the major textbook houses, a few consulting firms, the largest testing services, one can catch glimpses of mini-Ministries, of proto-Ministries, perhaps of a shadow Ministry.

It is not beyond possibility that we shall some day have an official Ministry of Culture and Popular Enlightenment. We have other Ministries, after all. Meanwhile, however shadowy, unofficial, and bland it may be at the moment, we have the approach, and the culture Ministry approach is the real danger to pluralism in America -- and perhaps most dangerous to pluralism when it is planning pluralism.

What is the Culture Ministry approach to education? It is deductive, suprapolitical, holistic, and large -- the approach, not the education. A teacher might like to teach by rigged induction or "the discovery method" because she has discovered that it keeps the children excited, teaches them to solve problems, makes things memorable, and so forth. A Culture Ministry, on the other hand, would decide that children are to be taught by the discovery method because this is the Age of Science; it deduces that induction is the method. A Culture Ministry might decide that children must know all about democracy, but its decision would not be a democratic decision; the Ministry may have a politics, but it is not political in the low, healthy sense of wardheeling, catching the local mood, making deals, and pleasing the voters; it is lofty. A Culture Ministry textbook may be a jumble of bits and pieces, a brightly illustrated smattering-book with dull shallow little exercises to help the children smatter for themselves; but the charts on the endpapers of the Teacher's Edition will show that the book is part of "a six-year integrated sequence of skills-development and concept-development" which is systematic as a whole; the fragments dealt out in the Fourth Grade book are just those portions of that whole that are suitable for a

nine-year-old mind -- no, suitable for "the nine-year-old mind". To the Culture Ministry, a poem or story is important because it is part of a larger entity -- as a child is part of society. There is, as William James said, no superstition like what he called "the idolatry of the Whole".

The Culture Ministry approach takes its special character from the fact that it is generated by men and women of large mind talking in a room. Sometimes the room is a board-room, sometimes the kaffee-klatsch area in the Associate Director's office in a government agency, sometimes (though this is usually a later stage) the Louella M. Perkins Academic Theater in some university somewhere. The men and women may or may not have had, at some time in the past, direct experience of school-children; often not; but in any case they have really been selected for their success at talking in rooms.

Culture Ministry talking is expert talking. It is de haut en bas. Typically, it begins with three or four grand ideas. One or two of them will have to do with "new" knowledge or "the knowledge explosion". One or two will have to do with "the future[or, depending on the ethnic group, emerging] needs of our society", or with children

as "a precious natural resource", or (more humanely) with "the world our children will have to face". An up-to-date theory of children is also highly desirable.

There are obligatory names and terms. If the curriculum is to be a "language arts" curriculum, there must be someone present who has read Chomsky (or Lakoff or McCawley), or at least has read "up on" Chomsky (or Lakoff or McCawley); if mathematics, someone present must know how things stand with Bourbaki (or Dieudonne or Godel or Smale or that fellow who did whatever that was on computability). There should be someone who keeps abreast of developments in the new profession of futurology, which is divided into two camps: The Schadenfreudians who rub their hands and say, "To us obsolete old fellows, society may seem to be going to hell in a handcart, but our children no longer need our ideals and will be living happily in a revolutionary reality where the likes of us will be of merely antiquarian interest, heh heh heh," and the Looming-disaster Men who say, "The world <u>is</u> going to hell in a handcart, and if the planet should accidentally remain habitable, our children must be prepared for centuries of stark adversity [or chaos, or grinding leisure]." It hardly matters which camp is represented at a Culture Ministry planning session. If the language arts are to be

redesigned, any futurologist can explain that the electronic media have revolutionized communication and "therefore" the traditional emphasis on reading and writing must be "re-examined"; if mathematics, either sort of futurologist can point out that any curriculum that fails to take account of the new integrated circuits, which are going to put a pocket computer into every pair of jeans and a point-of-sale scanning computer behind every can of dog-food, is wasting the children's time. It goes without saying that Piaget must be represented, so that the Ministry can continually be reminded what children are like. A discreet Skinnerian, if such can be found, will lend balance, for a Culture Ministry must not be altogether up-to-date: there are culture-lags even in the world of professional advancement. One can be cognitive but still a little operant, and one should never slight the affective domain. One never knows. The Culture Ministry approach is not inconsistent, but is like Hegel's notorious Concrete Universal -- fecund.

In American political and social arrangements, it has been traditionally taken for granted, that any institution or agency which affects the lives of the citizenry will listen to the citizens, and

that when the citizens are offended by the institution or agency they can change it. These notions of responsiveness and responsibility, of consent and redress, underlie our constitutional theory, our anti-trust laws, our regulatory agencies, our conservative rhetoric of the free market and our liberal rhetoric of consumer advocacy. One exception is the appalling growth of a judiciary with the power and disposition to legislate deductively on every subject, including education; the citizens' influence on the selection of Federal judges is too remote to amount to anything, and the procedure of constitutional amendment, which is the citizens' means of redress, is impossibly cumbersome. Another great exception would be a Culture Ministry.

We can already see in outline how the Culture Ministry approach deals with responsiveness and responsibility.

In the first planning stages of the Culture Ministry approach, it is ideas that are represented, not constituencies and certainly not people. Is the program what the children's families -- breathing, sweating, believing families, with fears and hopes

and idiosyncrasies of their own -- want in their lives? That is a marketing problem.

If we had a fully developed Culture Ministry, we could observe how, working downward from its principles and addressing itself to this marketing problem, it would "touch base" with unofficial representatives of some of the larger and better organized interest groups (the teachers and the minorities, for instance). There would be lunches. Interest-group people are always glad to have lunch with Ministry people. Many good things can happen over the scaloppine -- in this case, programs that would benefit teachers economically, new guidelines to repress racism, sexism, and other forms of repression, and the like. Quietly, the kind of thing a Ministry thinks of as a "grass roots" acceptance would grow up; actually, of course, it would be manufactured for the Ministry by its allied organizations.

That is what a real Culture Ministry would put in place of the old-fashioned political responsiveness. But a Ministry has to have some official status in order to work as unofficially as that. A textbook publisher,

however large, or an ordinary grantee or "Curriculum Study Group", being only a fractional unofficial part of what is still a diffuse unofficial Ministry, cannot entirely escape from the traditional political processes. Nevertheless it, too, uses techniques for eliciting responses instead of responding to the minds and culture patterns of the citizenry. It procures acceptance in small official ways. It rents exhibitors' booths at the right professional meetings. It publishes ancillary materials that do much of the teacher's preparation for her (and some of her teaching as well) in the form of workbooks, ditto masters, diagnostic tests, "learning packages". It provides pedagogical boilerplate -- simply-worded summaries of the reasoning that it hopes the local adoption committees will follow. It employs "consultants" and "reviewers" and ever "series editors" for their influence rather than for their closeness to the data. (The children and parents are the data.)

There are three assumptions that underlie this merchandising phase of the Culture Ministry approach: the plasticity of culture, the ignorance of parents, and the cupidity of teachers. Are these assumptions valid? Not always. In the bitter Kanawha County textbook

controversies, for example, two of the assumptions did not hold at all. The local culture resisted change. The parents assessed the books shrewdly and quietly--sooner and more shrewdly than the Superintendent and his staff did. The teachers are more difficult to be sure about, if only because they were in a difficult position. Many of them, even some who privately deplored the new textbooks, may have been alarmed at the loud, sudden assertion of laymen's rights, but in my field observations I did not get the impression that the teachers were predominantly the sort who want their planning and thinking done for them -- their homework done for them. in fact -- by the publishers' experts at the taxpayers' expense, or that they were alarmed by the prospect of having to work harder.

The important fact is that the assumptions were made. I made them myself. Until I went to West Virginia and met the "creekers" and the very interesting men whom the press sneeringly referred to as "self-ordained ministers", I had had the vaguest notions about "hillbilly" culture; perhaps a few loads of buckshot would be fired off in defense of ignorance, and then the creeks and hollows would be opened up to Information. Instead, what I found was that the Fundamentalist Christians in

Kanawha County had a culture formidable not for its obstinate defense of the past but for its old-fashioned way of looking to the future, its innocent belief in schooling, its belief in the moral importance of books, its enjoyment of technology while treating technology as an external, its remarkable combination of existential realism and spiritual trust. The textbook publishers were sincerely astonished that these men and women would resent schoolbooks which treated the Old Testament as a collection of primitive myths and metaphors and invited children to make up their own myths as (so the books appeared to imply) the writers of the Bible did; which denigrated grammar and implied that body-language and street language were at least as worthy of a child's study as formal English; which explained adolescent stresses by graphic descriptions of boys' fears that their penises were too small to satisfy their mothers' vaginas and of girls' fears that their vaginas would be ruptured by their fathers' penises; which repeatedly presented teachers and principals, law officers, parents, and other adults in posts of authority as uncomprehending curmudgeons, and hot-rodding teen-agers as moral heroes; and which were drenched with personal violence. When the citizens expressed a desire to spend their tax money on other schoolbooks for their children, the publishers

really thought of it as a hideous recrudescence of flat-earth barbarism and Nazi book-burning; because the publishers were thinking of culture the way a Culture Ministry thinks of culture. And the poor Superintendent of Schools (stopping off between Fargo, North Dakota, and a professorship in tidewater Virginia) fought a year-long battle in defense of books which 66% of the parents in the county found obnoxious, and then resigned -- without having bothered to read the books; because he knew the books were up-to-date books vouched for by experts.

The Culture Ministry sequence reproduces a familiar modern industrial sequence: Research -- Development -- Design -- Sales. But in industry "market research" is supposed to close the control loop by feeding back the customers' wishes into the beginnings of that sequence. Educators tend to omit this, or at least to carry it out in self-garbling ways. So do some industrial enterprises, especially in moments of high prosperity; it is hard to say why. Perhaps where the air is thin and cold at the top of a great corporation (or proto-Ministry), a man can get dizzy and lose touch with the things of earth; or perhaps market-researchers become afflicted with a hybris of their

own and pretend they can measure scientifically, not what people want, but what they could be made to want; or perhaps the lead-time is so long on a new product-line that it has to be begun before the customers could see the need for it. When for any of these reasons a corporation neglects to do earthy, nominalist market research, it is in effect making assumptions like those of a Culture Ministry: the plasticity (not elasticity) of demand, the ignorance of the customers, and the manipulable cupidity of the distributors. Educators omit the initial consultation with the real customers -- the parents -- for a different reason. They omit it on principle.

But to return to those men and women talking in the room: I do not think they perceive they are treating abstractions as more real than people. Most of them are professing democrats. They do not knowingly model themselves on Peter the Great, breaking millions of little eggs to make the Grand Omelet of Progress. They are sincerely anxious to better the lives of little children; one often hears them citing the joys and struggles of their own children (the only children they have ever taught, it sometimes turns out) with simple warmth. But whatever the talkers may think they think, they are in fact practicing

Hegelians. They are men caught in a process.

So much for responsiveness. What about responsibility, the ways in which an agency or Ministry can be made to answer to the citizens it operates upon?

There are four characteristics or tendencies of Ministries the world over, including Culture Ministries, In case we are tempted to let the centralized planning of children's minds become official, we ought to recognize that: (1) When there is no general crisis, a Ministry is a special government. ... is a client state of the general government, but it is always half rebellious. It has itw own patriotism. It pursues its own interests. It makes secret treaties with the other agencies of the general government. Its policies develop from the logic of its own history, not from the decisions of the general government. (2) Where it can, a Ministry bases its authority not so much on explicit legislative mandate (which would expose it to public discussion) as on its practical power of retributive annoyance. No job is too small for a Ministry, because powere of that sort derives from the detailed supervision of the citizens' concerns. The logic of a Ministry is always to invade and supersede

the policies of smaller units of government -- in American terms, a Ministry of the Federal government must persistently act at the state and local level, a Ministry of a State government must show it can interfere at the local level, etc. (3) Since a Ministry tends always to exceed its statutory authority, its own legislation ("guidelines") is couched in the phraseology of advice and mediation. But that phraseology is what the Italians call an ingannacontadino, a fraud on the peasantry; the peasantry in this case including a good many Manhattan Island peasants. For (say) the working school or university administrator and for the private citizen, "compliance" practically consists of satisfying a particular functionary. "Noncompliance" is punished at first by questionnaires, grave or repeated offenses by the withdrawal of expensive benefits. Ministry decisions cannot safely be appealed upwards, but may sometimes be appealed downwards. (4) Ministries are hierarchies run from below. The Minister is, so to speak, not a man but a place. A man, even an independent-minded man, can live inside the Minister for a few years. He may even have the moral strength to resist aggrandizing his budget and his own ostensible power -- and yet his budget mysteriously grows in spite of him; his staff

proliferates; programs he has decided to terminate are found alive and living two floors down; directives he drafts are "checked" by counsel and "polished" by subordinates and come out not quite saying what he meant; in Spokane he will tell a 1977 college commencement where he stands on an issue, and the same day in Roanoke a 1975 law-school graduate will file an amicus curiae brief for the Ministry on the other side of the issue; but neither man will get into trouble -- because the young lawyer speaks for the Ministry staff consensus and the man-in-the-Minister provides popular "cover" for the fascism of detail.

In other words, a Culture Ministry would be (in the literal sense of the adjective) irresponsible. It would be part of the Executive Branch; and the Executive Branch is supposed to be responsible - quadrennially - to the electorate. But that is a fiction. The President of the United States is answerable to the electorate. Does the President control the agencies and departments of the Executive Branch? Obviously not. He exercises a functional control over the titular heads of agencies and departments--what one might call a "crisis control". And the titular

heads of agencies and departments are themselves relatively powerless. As one reads War and Peace, one remains unconvinced by Tolstoy's odd theory of history, which among other things, implies that the private has more freedom of will than the general; but Tolstoy would have understood our Executive Branch. At the moment, the Congress collectively has, and the Congress distributively have, far more actual control over the understrappers of the Executive Branch than the President has. But given the real interests of congressmen and of bureaucrats, the tendency is for the elected representatives of the people not to control but to collude.

We must not suppose that an official Culture Ministry, if we acquire one, will be a democratic institution any more than the unofficial proto-Ministries are now.

-ii-

Is this a caricature? Manifestly it is. Like any parody, it exaggerates the distinctive features of its subject. Exaggeration is a well-known technique in the physical sciences, the basis of many thought-experiments. As a thought-experiment, then, let us consider whether the habit of thought and mode of operation I have caricatured as "the Culture Ministry approach" would entail certain tacit preferences as to curriculum content and curriculum style. I think they would entail strong preferences for innovating, scientizing, and doing too much.

People who devise new curricula would not do so unless they believed the old ones were inadequate. The matter, however, is not quite so simple as that. Certainly the late Max Beberman would not have devoted himself to building up UICSM if he had thought well of the conventional arithmetic and algebra textbooks of the 'forties and 'fifties. But his example made it evident that grants were available and stories in Time were possible for curriculum innovators - particularly where the "new" material was brought down from graduate school into the elementary grades and employed an awesome notation. Soon it became more and more difficult to see just what new convictions

entered into each successive project for reforming the mathematics curriculum; some of the projects seemed to have been confected for extracurricular reasons.

And in other fields (such as English) vigorous young professors, looking ahead to scratching out their three boring little articles a year, year after year, and teaching their freshmen, must have longed to emulate UICSM, SMSG, PSSC, CBA, BSCS, and the other heavy grantees of the sciences. I would never suggest that the late Paul Roberts worked from anything other than true intellectual conviction and the excitements of transformational generative grammar, though, as things turned out, his efforts to adapt Chomsky for grade-school were inept; but if various efforts to adapt Peano, Frege, and Russell for grade-school had been less conspicuously successful (I do not mean pedagogically or mathematically successful), Roberts might well have had to go on doing the sort of amusing and useful traditional grammar book he had been writing earlier. The demand was not in the schoolrooms and homes; the demand was in the foundations' and publishers' offices; the supply of innovations always meets or exceeds the demand for them, and they do not always meet the needs of the schoolrooms and homes.

The public sponsorship of curricula, whether by government agencies, foundations, or commercial publishing houses, gains little kudos from the gradual improvement of the familiar, and even less from the selective revival of the traditional. The current craze for new nostalgias may revive McGuffey's Eclectic Readers for a moment or two; there happens to be a lot of first-rate applied descriptive linguistics in the opening chapters of McGuffey's Fifth and McGuffey's Sixth, some of it anticipating modern work in quite striking ways; but if the Eclectic Readers were to be revived, it would be for their quaintness, not their linguistics. A foundation or publisher would invest $100,000 in the reinvention of textbook materials on "stress, pitch, and juncture" (as the linguists were calling them in the 1940's and 1950's); but if some one asked for $10,000 to revise materials on "accent, inflection, and articulation" (as the brothers McGuffey were calling the same things in the 1840's and 1850's), that "would not be within the scope of our grant policy" and there "would be, we are afraid, too specialized a market."

A new curriculum must not only be innovative in conception, it must be strenuously innovative in detail. If

possible, every page should be Promethean. Perhaps that accounts for the grotesque errors of judgment in MACOS and for the erotic verse and the graphic descriptions of youthful incest-fantasies in Houghton Miffin's Interactions series; Prometheus does not stop to trouble whether children ought to be playing with matches.

We should note that: (1) It is not the adventitious bias of men and women in the proto-Ministries that tends to cause such lapses, though the proto-Ministries seem to have collected a large number of employees who confuse novelty with knowledge and who think that reticence is bad for you; rather it is the precerebrate innovational bias in the structure of the proto-Ministries. (2) Such lapses - or, to take their authors' view of them, such life-changing choices - are protected by the amorphous but formidable congeries of proto-Ministries, and are forced on children without parental consent. And (3) gross pedagogical errors are fixed almost irremovably in curricula and even forced into older curricula by the evolution, not through conviction but for convenience, of a Ministerial consensus; for example, whether or not the use of set-theoretical terminology in elementary mathematics is such a gross error (I, for one, have come

to suspect that it is), the fact remains that textbook writers no longer have any choice in the matter, and the obligatory discussions of sets have been inserted into books originally conceived on quite other principles, because the success of the innovative curricula using set-terminology compelled the major test-publishers to put in questions on sets, and the tests now compel the book-publishers to put in chapters on sets.

In 1964, I wrote a little book for children called Arithmetic For Billy Goats, a not very luminous bit of whimsy based on the notion that, just as we use decimal numeration because we have ten fingers, goats would use binary numeration because they have two front hooves. Somewhere in the penetralia of the publishing house, a "math consultant" objected to the publication of my manuscript because it did not explicitly expound the distinction between numbers and numerals -- another of Max Beberman's contributions to pseudo-rigor in early mathematics, and at that time de rigeur. That consultant interleaved and interlineated my typescript with so many expressions of rage and shock that the editors thought I had better do the thing over. I was willing to rewrite my book, but not to rewrite Bertrand Russell for tots; my approach was to derive mathematical notions from simple

experiences of the real world, not from considerations of pure logic. My editor at the publishing house was sympathetic, but he did what he had to. "Aw," he said, laughing, "it's just one of the little gnomes around here. He's not such a bad fellow. Every publishing house has these little gnomes, you know. They have to make a living. Put in some stuff on numbers and numerals and make the little gnome happy. It's what they all want now, you know? It won't really harm your book," etc. And of course I obliged with some revisions and insertions. The book went largely unnoticed -- except for one slashing review in a major weekly. The reviewer attacked it as a typical example of the "New Math", with its boring unnecessary distinctions between numbers and numerals and the like.

Because of the way in which its programs are generated and internally reviewed, a Ministry tends to scientize whatever it can, drawing of course on the latest and most sophisticated research, even when the topics and the research results are inappropriate to the age of the pupils, to the natural sequences by which people acquire the "feel" for various subjects, or to the prevailing and local cultural needs. In the Culture Ministry

approach, the impulse toward social engineering is usually strong but the predilection for science (or for the look of science) is often stronger.

Instead of teaching English in the ways that, using exiguous resources and almost untrained teachers, civilized the scattered and busy folk of the Middle Border and West, and, under conditions of crowding and poor health, rapidly brought vast numbers of children of impoverished immigrants -- many of them illiterate in their native languages -- to full social competence and occupational equality, "modern" textbooks teach linguistics. There may (or may not) be some excuse for applying linguistics to the design of English texts. In particular, the insistence by linguistic theorists that the spoken language is primary and the written language derivative was useful (though obviously not necessary) in combatting the look-say method -- itself largely the result of applying psychological "science" to the reading curriculum. But it is one thing to teach linguistically, another to teach linguistics, and many of the "modern" schoolbooks teach students about language, not how to use language. The children of dirt farmers and coal miners and chemical-plant workers in the creek

hamlets of Kanawha County will have to master the vocabulary, syntax, and habits of discourse of formal English if they are to have a chance at becoming professionals, managers, or technicians in the local industry. To feed them tidbits about body language, to exhibit the rebellious beauties of street-language, to imply by a kind of inverted philology that no one's way of talking is any "better" than anyone else's and that there is no standard of "correctness" is at best to divert them from the serious task of getting a decent chance in life, and in practice bears the same relation to teaching English that "consumer education" bears to real education -- that is, producers' education. The old missionaries doubtless did much cultural damage to the savages, but at least they did not teach them anthropology, which would have robbed the savages of the culture they had and of their aspiration for acquiring any other.

One thing that must be said for several of the earlier large-scale curriculum reforms -- PSSC and UICSM, for instance -- is that they were conceived dramatically. There was, I now think, too much effort to arrange the material around one or two very large recurring ideas. For instance, the wave/particle theme running through PSSC seemed rather artificial at times; it may even have been misleading, as giving the students an impression that they knew more physics than they really did, that the hard part of physics was coming to the conclusions and that the conclusions themselves, when one got there, were simple. But at least there was an effort to unfold the subject excitingly. The tactics of presentation were cleverly worked out. Perhaps this was because the university professors involved in those days were struck by the novelty of their own role; they enjoyed unbending; they were professors who were going to show schoolteachers how to teach school. They were not only going to see to it that the physics (or math) taught was valid, important physics or math; they were going to put their minds to pedagogy. That was fun. This put their work in striking contrast to conventional textbooks, which had already begun to get drearier and drearier, out of

respect for the latest scholarship.

The other day, I dropped across the hall to chat with a history teacher in our school. I found him glumly leafing through his Ancient History text. He remarked that it was boring his sophomores into insensibility. "Every edition," he said, "gets more technical, and revisionist, and accurate in the details of archaeology, and concerned with economic history. There are no characters in this book."

"Back to Breasted?" I said lightly.

"Well, at least the old boys used to tell the tale."

It seems to me important that a young student hear the tale first, visualize the spectacle, share the passion. Initial oversimplification can be corrected later; years later, if need be. Initial boredom may be terminal. And aside from boredom, what is important to scholars in a subject may not be what is important to learn first. There is a meaning to what Aquinas said -- Principium igitur cujuslibet nostrae cognitionis est in sensu -- besides the

one he intended. At the beginning of a subject, our minds are are somewhat sensual.

As the novelty of the professorial role in improving schoolwork wore off, the later new curricula lost a good deal of the masterly first-impressionism of the earlier ones. Meanwhile, the competitive pressure on schoolbook publishers from the prestigious Study Groups pushed the publishers towards inserting more and more scholarly, up-to-date material in subsequent revisions of their standard products, and the tendency toward comprehensive, authoritative dullness was accelerated. Some of the early efforts at curriculum reform in mathematics were like attempts to make pop-up picture book versions of the Principia Mathematica. That phase is over, and mathematics textbooks are duller than they were before.

That, in part, is what I mean by a tendency to "do too much". The Culture Ministry favors excessive systematizing, overcompleteness in detail and coverage, excessive rigor, and a strange fanatical disposition to teach each topic once and for all.

Many of the professorial reformers of the 1950's and

and 1960's were distrustful, if not contemptuous, of the classroom teachers who were going to use the new materials; so the materials were "teacher-proofed" -- another form of doing too much, another characteristic of the Culture Ministry approach. The long-term effect on teachers has been deleterious, and this generation of teachers seems to have accepted a dependence on text-books and packaged ancillary materials which has helped to change the schoolroom from a place where teaching happened to a place where processing takes place.

-iii-

The opposite polity is quite impossible to describe, so I shall describe it very briefly. One might call it the In Situ approach to education.

Neither of the models I am setting up exists in the "scientific" sense that it can be described in quantitative terms (Rem metiri posse, rem esse putare), and in no sense does either exist in the pure state. But whereas the Culture Ministry approach can be identified in the mixture of attitudes and procedures we can see around us and the Ministry itself seems to be coming inexorably into being, the In Situ approach to education is only waveringly visible and in a way seems to be going out of existence as rapidly as it comes into existence -- or rather, seems to be turning into something else as it grows.

What the In Situ approach ought to consist of is a shift of the loci of perception and planning and decision out into the schools. Perhaps in some ideal sense -- the sense in which all men are created equal, or the sense in which America is a free country -- that is where those loci still are. In constitutional theory, the Federal and State agencies that regulate public schools (and, increasingly, private schools) are controlled by the electorate;

the citizens control their School Boards, the School Boards their curricula; the operations of the free market control the commercial textbook publishers, the teachers buy in the free market, and the pooled sensibilities of the parents control the teachers. But just as we know that in everyday practice all men are not equal and do not even enjoy equal rights, and just as there is more substantive interference with the freedom of the citizen in one issue of the Federal Register than in all the enactments of George III together, so we have to recognize that as things now stand almost all the initiatives in education come from outside the schoolrooms and are not known to the parents at all. The thinking is in vitro thinking, the planning is Ministerial, and the execution is conditioned by those autonomous and little-known entities, the teacher-training institutions.

An example of what I mean by a shift of the loci is the kind of "field-based, performance-based" teacher education now being experimented with in several places. Though there are still lectures and courses at the School of Education of Brooklyn College, its essential program is out in the schools of Brooklyn; the education professors

accompany their students out into the noise and stress, the wearing daily failures and almost inexplicable successes, the wonderful and terrible presence of the children -- each child with his little opacities and his flashes of accessibility -- and of working teachers -- each teacher with his little fears of exposure, his weary lore, his lapses into habit, his bits of courage and inventiveness. And in the laboratory of the real schools, the teachers-to-be examine their professors' ideas and the professors reexamine their own ideas.

What the future of "field-based, performance-based" teacher education is, I do not know. Such programs are expensive. Until the unemployed trained teachers are absorbed back into the schools - something that may take years - American society (influenced by the teachers' unions) might be unwilling to pay very much for the training of new ones. Moreover, the dialectic process by which men and movements fail through succeeding, by which everyone changes - sometimes into its opposite - in order to go on existing, which turns the young rebel into the old despot, the mystic into the inquisitor, and the innovator into the bureaucrat - that dialectic is at work. The more successful "field-based, performance-

based" programs become, the more the State bureaucracies encourage them, sponsor them, even mandate them. Under such sponsorship, definitions alter subtly. Efforts become procedures. Procedures become checklists. Ideals become standards. Standards become requirements. What starts as "performance- based" becomes "competence-based", competence is specified and quantified, and suddenly one day the teachers-to-be find themselves back in the old occupational treasure-hunt, clutching their little lists. But whatever may happen to "field-based" teacher education, it gives us a glimpse of the In Situ approach. We can surely visualize a dispersed collaboration of that sort, in which ordinary American schools become the setting, and curriculum improvements are conceived, tried, modified, rearranged, replicated, and compared by mathematicians and mathematics teachers, biologists and science teachers, historians and social studies teachers, grammarians and English teachers, mediated perhaps by some of the more intelligent faculty members from schools of education.

Such arrangements would also have their biases as to style and substance. For instance, the presence of the children would, I think (or at least I hope), tend to bring out the ham in the professors; would encourage the telling of the tale, would push the footnotes to the bottom of the page, restore the naive pageantry of the facts to its

proper place, and reawaken scholars' memories of their own first love of their subjects. In a real high-school geometry class, it might not seem worthwhile to spend hours proving that every line-segment has one and only one mid-point, as I believe one eminent Study Group proposed at one stage to do; or perhaps it might, if the drama of mathematical rigor could be played for its endearing quixotry. With children present, and parents in the offing, it might be easier for reformers to remember that history and science and literature have moral and theological content; the living faith of a citizen's household may look like superstition when seen from a university Conference Center in July, but it may seem like something else when a child is hesitantly piping his questions.

With that somewhat impressionistic contrast in mind, let us now return to the three questions at the head of the paper.

(1) It is always a little dangerous when the same entity gets new ideas and pays to have them implemented. The check on (say) the Hudson Institute is that it cannot put its schemes into practice. It must persuade other entities - governmental or corporate - that the schemes are good. A sort of check on the pre-Bundyan Ford Foundation was that it had to choose among vast numbers of schemes, many of them conflicting in tendency, submitted by diverse entities; and in making its choices it had to criticize each scheme with a certain skepticism. Certainly, one criterion the Foundation used to use in evaluating any proposal was whether it came from people currently and devotedly working in the field affected. When the Ford Foundation became a think-tank with an action-budget of its own, it began such adventures as disastrous interference in Bed-Sty.

(2a) Big Grants buy hybris

(2b) There are no new teaching methods.

(2c) One of the salutary effects of the BSCS-NSF litigation, which shows that Seventh Avenue runs right through the hearts of savants and public servants alike,

is that we may think again about what we really do when we throw tax money into the "free" market. "The free market in ideas" is a fundamental concept of our democracy.

(3) One day in 1963-4, when I worked at NSF helping administer secondary-school programs, I was moved to protest to some of my colleagues against what I thought was a tendency to use our teacher institutes and our Cooperative College-School Science Program as "penetration aids" to push the new packaged curricula - UICSM, SMSG, PSSC, BSCS, CBA, CHEMS, ets. - into schools; and this was at a time when I thought several of those curricula very good. Most of those curricula had been paid for, jointly or severally, by NSF and the giant private foundations, and had devoured grants so voraciously that there was little money anywhere for competing work on curriculum. It seemed to me that the only way a commercial textbook publisher could compete with the new packaged curricula was either to imitate them, mistakes and all, or else to appeal to teachers' and school boards' laziness and fear of the new. And in fact, those were the ways in which the publishers of mathematics textbooks (vide supra) did stay in the market: A few, like Laidlaw, doughtily continued to reissue some good old standbys; most of them hired

hacks who, like so many medieval scribes copying "In principio", pecked out chapters beginning "A set is a collection of objects".

It also seemed to me wrong to suborn the judgment of working teachers and of the textbook adoption committees of local school systems by offering them factitious advantages in the way of summer excitement, career advancement, in-service credits (with pay benefits) and the like - especially when these would be paid for out of the taxes of the parents and other citizens who had the right, and thought (poor things') they had the power, to hire teachers and adoption committees that would exercise independent judgment.